

Mosquito Protection

The Alachua County Health Department would like to this opportunity to emphasize the importance of protecting yourself against mosquito-borne diseases as we move into the rainy season and the peak of mosquito activity. To humans and domestic animals, mosquitoes are a nuisance and a health hazard, capable of transmitting a variety of diseases called arbovirus. The main diseases we are concerned about in this area are EEE or West Nile virus. Most people that become ill will have mild symptoms including headache, fever, dizziness, and fatigue, but severe neurological symptoms are also possible. Although mosquito diseases can cause serious illnesses and even death in people of any age, children and those over 50 are at greatest risk for severe disease. If you experience any of these symptoms you should contact your physician immediately. DOH laboratories provide testing services for physicians treating patients with clinical signs of mosquito-borne diseases. Remember, avoiding mosquito bites is the best way to prevent disease.

What can you do to prevent infection?

Prevention is the key. The best way to avoid infection is to avoid getting mosquito bites. The Health Department recommends the use of the *"Five D's"* of prevention.

- **Dress** appropriately. The use of barrier clothing to prevent bites includes long sleeve shirts, pants, and socks.
- Avoid outdoor activities during **dusk** and **dawn** hours when mosquitoes are most active.
- If you must be outdoors, cover up by wearing shoes, socks, long pants and long-sleeved shirts, and use mosquito repellent with **DEET**. This is a chemical that is used in a variety of commercial products and repels mosquitoes. Use in accordance with package directions (more is not necessarily better) and re-apply as needed on skin that will be exposed.
- **Drain.** With the return of our normal summer rainfall patterns, we have significant amounts of standing water. Gutters, flowerpots, birdbaths, virtually any container can be the breeding ground for mosquitoes. Remove or empty water in old tires, tin cans, buckets, drums, bottles or any other containers. Be sure to check clogged gutters and flat roofs that may have poor drainage. Make sure cisterns, cesspools, septic tanks, fire barrels, rain barrels and trash containers are covered tightly with a lid or with 16-mesh screen.

Other things which may help some are use of citronella candles or torches around outdoor activities if there is little air movement. However, the best control measures are removing the potential breeding areas of standing water.

What can you do to help?

The mosquito that bit you last night may have hatched right in your own backyard!

- Look for places where rainwater collects and stands. Mosquitoes also hide in heavy grass or other vegetation.
- Check items such as flower pots, children's wading pools and toys, birdbaths and fountains, clogged gutters and drains, cans and bottles, old car tires, fish ponds and rain barrels, boats and other water craft, plants and tree holes that hold water.
- Get rid of any junk you don't need. Cover items you need to keep to prevent water from collecting. Items that can't be covered should be flushed or drained **TWICE WEEKLY** to prevent mosquitoes from hatching. An adult mosquito, under ideal conditions, can emerge from an egg within 6 days.

- Fill holes and depressions where you find standing water.
- Empty plastic wading pools at least once a week and store indoors when not in use.
- Change the water in bird baths and plant pots or drip trays at least once each week.
- Store boats covered or upside down, or remove rainwater weekly.
- Level the ground around your home so water can run off and not collect in low spots. Fill in holes or depressions near your home that accumulate water.
- Fill in tree rot holes and hollow stumps that hold water.
- If you have an ornamental water garden, stock it with mosquito-eating fish (e.g., minnows, "mosquito fish," goldfish or guppies).
- Repair screening on windows, doors, porches and patios.
- Some mosquito control methods are not very effective. Bug zappers are not effective in controlling biting mosquitoes. Various birds and bats will eat mosquitoes, but there is little scientific evidence that this reduces mosquitoes around homes.
- Unused swimming pools need to be maintained with chlorine and circulation or else treated to prevent mosquito breeding.
- Treat standing water with a larvicide containing the bacteria *Bacillus turingiensis*.
- *Gambusia* minnows can be released into larger more permanent bodies of water. These fish are mosquito predators which eat the mosquito larvae. This provides an environmentally sensible way to control mosquito breeding naturally without endangering people, pets or wildlife.

What is the County Doing?

- One of the ways that we assess the potential for EEE and WNV is the use of chickens as sentinels to detect virus activity. We have placed six flocks of chickens geographically across the county. Mosquitoes feed on the chickens and if infected pass the infection to the chicken. The infection to the chicken is very short and leaves antibodies to WNV or EEE, which we can then detect. Blood from the chickens is tested to look for signs of the arbovirus. If virus is found and mosquitoes are biting, mosquito control efforts will increase. Press releases and public education will remind people to protect themselves from mosquito bites.
- The County treats potential mosquito breeding retention basins by "larviciding". They use a low toxicity bio pesticide containing the bacteria *Bacillus turingiensis israelensis*, Bti, a live bacteria that's deadly to mosquito larvae and harmless to other living things. Bti may be placed in standing water in the form of floating tablets which release the Bti slowly.

Do not hesitate to report mosquito problem to your municipality mosquito control or the Alachua County Health Department.